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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,185	06/08/2007	Joseph B. Schlenoff	FSU 70008.3 (04-107)	7098
321	7590	10/22/2009	EXAMINER	
SENNIGER POWERS LLP 100 NORTH BROADWAY 17TH FLOOR ST LOUIS, MO 63102			KRYLOVA, IRINA	
ART UNIT	PAPER NUMBER	1796		
NOTIFICATION DATE		DELIVERY MODE		
10/22/2009		ELECTRONIC		

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**DETAILED ACTION**

***Attachment to Advisory Action***

1. Applicant's amendment filed on October 13, 2009 has been fully considered, however the amendment has not been entered given that it raises other new issues that would require further consideration and/or search.
  
2. With respect to new issues, independent claim 1 has been amended to include a limitation of the polyelectrolyte film further comprising a perfluorinated counterion within the bulk of the interpenetrating network of the net positively charged polyelectrolyte polymer and the net negatively charged polyelectrolyte polymer, the fluorinated counterion comprising at least two fluorine atoms. Claim 12 has been amended to include the limitation of a film comprising perfluorinated charged particle. It is examiner's position that this are the new issues since these limitations were not presented before, i.e. claims dependent on claims 1 and 12 were not presented before with this combination. Further, new claims 39-41 have been entered. Therefore, the amendment would require further consideration and/or search.
  
3. Regarding the rejection of claim 12 under 35 USC 112, first paragraph, Applicant argues that the limitation of the polyelectrolyte film comprising a polyelectrolyte polymer and perfluorinated charged particle in which the repeat units comprise at least two fluorine atoms is supported by specification. Examiner disagrees. The specification in paragraph [0012] discloses film comprising fluorinated charged polymer and a

fluorinated charged particle, wherein the charge of the particle is opposite that of the charge of the particle; paragraph [0095] discloses "in one embodiment, a preferred particle is an aqueous dispersion of fluorinated polymer (FP). A preferred FP comprises tetrafluoroethylene." There is no place in the specification to provide support for the limitation of "perfluorinated charged particle comprising repeat units with at least two fluorine atoms".

4. Regarding the rejection of claims 1-4, 6, 28-29, 32-33, 36-38 under 35 U.S.C. 103(a) as being unpatentable over **Stevenson et al** (US 2004/0191504) in view of **Thompson et al** (US 3,717,679) and **Baur et al** (US 5,563,016), and rejection of claims 5 and 8 under 35 U.S.C. 103(a) as being unpatentable over **Stevenson et al** (US 2004/0191504) in view of **Thompson et al** (US 3,717,679) and **Baur et al** (US 5,563,016), in further view of **Iijima et al** (US 4,316,789), claims 30 and 31 under 35 U.S.C. 103(a) as being unpatentable over **Stevenson et al** (US 2004/0191504) in view of **Thompson et al** (US 3,717,679) and **Baur et al** (US 5,563,016), in further view of **Stirniman et al** (US 6,355,300), Applicant argues that none of the references disclose, as amended, a polyelectrolyte film comprising a net positively charged polyelectrolyte polymer, a negatively charged polyelectrolyte polymer and further comprising a perfluorinated counterion within the bulk of interpenetrating network of the net positively charged polyelectrolyte polymer and the negatively charged polyelectrolyte polymer, the perfluorinated counterion comprising at least two fluorine atoms. However, it is noted

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that the amendment is not entered at this time for the reasons stated above, thus rendering Applicant's arguments moot.

5. Regarding the rejection of claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Wu et al** (US 2003/0169227), Applicant argues that **Wu et al** discloses 1) fluorinated solvents which are not polymers; 2) the fluoropolymers in the continuous phase are being not charged; 2) no fluorinated material is stated to be located in the dispersed phase,i.e. as a coating on the particles.

Examiner disagrees.

**Wu et al** discloses an electrophoretic film made from a dispersion of (ii) a fluorinated electron donating polymer in the continuous phase and charged particles comprising electron accepting or proton donating polymer in a dispersed phase (Abstract).

The electron accepting polymer in the **dispersed phase** or **on the surface of the particle** comprises **perfluoroamides** ([0069]).

The fluorinated electron donating polymers in a **continuous phase** comprise fluorinated pyridines or quarternium salt thereof ([0076], [0077], claim 14).

6. Therefore, **Wu et al** discloses a combination of opposite charged (one - electron-accepting, the other - electron accepting) polymers, both being fluorinated. Though **Wu et al** does not explicitly states the number of fluorine atoms in fluorinated polymers of the continuous phase, nevertheless, since all the provided examples of the compounds with functional groups that have more than two fluorine atoms in the molecule,

therefore, it would have been obvious to a one of ordinary skill in the art that fluorinated polymers will contain two or more fluorine atoms in the molecule as well. Though pigment particles are not stated to be fluorinated, nevertheless, **Wu et al** states that electron accepting or proton donating polymers are on the surface of the particle (see line 3 in [0069]), thus providing the charge to the particles.

7. Regarding the rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over **Wu et al** (US 2003/0169227) in view of **Hiro et al** (US 4,863,823), Applicant argues **Hiro et al** discloses fluorinated monomers that polymerize into neutrally charged polymers. Examiner disagrees.

**Hiro et al** discloses an electrophotographic member comprising a surface layer deposited on a substrate, wherein the layer comprises a fluorine resin powder and a fluorine type block copolymer (Abstract). The fluorine resin powder comprises tetrafluoroethylene resin (col. 2, lines 52-55). Since **Hiro et al** discloses the tetrafluoroethylene resin used as a powder for coating a substrate for an electrophotopgraphic member, wherein the layer comprises good electrical characteristics and durability (col. 1, lines 15-25); therefore, it would have been obvious to a one of ordinary skill in the art at the time of the invention was made to use the polytetrafluoroethylene powder of **Hiro et al** as a coating for particles in the dispersion of **Wu et al**, to provide good electrical characteristics to the dispersion and films of **Wu et al** as well. In addition, **Hiro et al** is a secondary reference and secondary reference does not need to teach all limitations. "It is not

necessary to be able to bodily incorporate the secondary reference into the primary reference in order to make the combination." *In re Nievelt*, 179 USPQ 224 (CCPA 1973).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina Krylova whose telephone number is (571)270-7349. The examiner can normally be reached on Monday-Friday 7:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Irina Krylova/  
Examiner, Art Unit 1796

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